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Research Articles

β-Cyclodextrin: An Efficient Supramolecular Catalyst for the Synthesis of Pyranoquinolines Derivatives under Ultrasonic Irradiation in Water

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Abstract

A newer, convenient and efficient approach has been designed for the diverse synthesis of 2-amino-4H-pyranoquinolines and achieved by a one-pot three-component reaction of aromatic aldehydes with ethyl cyanoacetate/malononitrile and 8-hydroxyquinoline catalyzed by β-cyclodextrin as a reusable supramolecular catalyst in an aqueous medium under ultrasound irradiation. Target products were synthesized in a tandem process, which meets their requirements of pharmaceutical chemistry.

Q Keywords: Multicomponent reaction β-cyclodextrin supramolecular catalysis ultrasonic irradiation pyranoquinolines

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Disclosure statement

The authors declare no competing financial interest.

Author contributions

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Additional information

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